

FETF 62862

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Vasel et al.)
Serial No.: 09/289,258)
Filed: 4/9/99)
For: NON-LETHAL PROJECTILE)
FOR DELIVERING AN)
INHIBITING SUBSTANCE TO)
A LIVING TARGET)
Group Art)
Unit: 3641)
Examiner: Tudor, H.)

DECLARATION PURSUANT TO 37 C.F.R. § 1.132

Hon. Commissioner for Patents
Washington, D.C. 20231

Sir:

I, Craig L. Beery, declare as follows:

1. I am currently the Vice President of Sales and Training for Jaycor Tactical Systems, Inc. (hereafter referred to as "JTS"). I have been in this position for about 1½ years.

2. Prior to my current position, I was a former Sergeant on the San Diego County Sheriff's Department, in San Diego, California. During my law enforcement career, I was assigned to Corrections, Patrol, Training, and Special Enforcement Detail (SWAT). I supervised up to 27 Deputy Sheriffs. Currently, I am a member of three community colleges in San Diego teaching

in the Criminal Justice Department. For the last 14 years, I have been one of the Master Chemical Agent instructors for the state of California.

3. I have worked 21 years in the area of less-lethal and non-lethal weapons for tactical and patrol use. Throughout my career in law enforcement, I have been exposed to, tested and used many less-lethal and non-lethal systems available on the market. Since my employment with JTS, I have become familiar with the Pepperball product. I am considered an expert in less-lethal and non-lethal weaponry.

4. I am familiar with less-lethal and non-lethal weapons as an alternative to lethal weaponry. Less-lethal weapons are typically used where lethal force is not warranted and have a reduced risk of resulting in death. Generally, less-lethal weapons are not designed to be lethal; however, may result in death in certain situations. Non-lethal weapons are also used to stop or detain a suspect where lethal force may or may not be warranted, but such weapons should not result in death with any use of the weapon. Less-lethal and non-lethal weapons may also be used to de-escalate situations before deadly force is required.

5. As the Vice President of Sales and Training for JTS, I oversee all sales and marketing of the Pepperball product to customers. Thus, I am familiar with the sales relating to the Pepperball Product. Attached hereto are several exhibits illustrating the sales of the Pepperball product. Exhibit A lists the

monthly gross sales/revenues of the Pepperball Product from January 2000 to June 2001.

6. The total gross sales of the Pepperball product from January 2000 through the end of June, 2001 are approximately \$3,098,130. This total includes the sales derived from launch platforms (compressed gas launchers), the Pepperball projectiles, accessories, and training revenues. These accessories include carrying cases for the launchers, hoppers, high pressure air (HPA) bottles, magazines, tactical slings, speed pod loaders and other projectiles for use in the launchers. These other projectiles include rounds containing one of the following substances: an inert powdered substance, water and a marking substance. The Pepperball projectiles contain a powdered version of oleoresin capsicum, known as OC. Some versions contain capsaicin, the active capsaicinoid in OC. In other words, the Pepperball projectiles contain a powdered version of a liquid pepper spray. I believe these sales reflect an acceptance in law enforcement of the Pepperball product as an effective non-lethal device that may be used in many situations and is superior to other products on the market.

7. Exhibit B illustrates the number of projectiles sold and corresponding revenue due to the projectiles from August 2000 through May 2001. The different types of projectiles include "red" projectiles that contain powdered OC, inert powder training projectiles, e.g., "purple" color projectiles that contain baby powder, and clear training projectiles that contain water. As seen, since August 2000, we have sold

over 413,000 red projectiles, over 720,000 inert powder projectiles, and over 255,000 water projectiles. Also attached is our current price list as Exhibit C. The price of the red projectiles, for example, ranges from about \$1.12/round to about \$1.60/round depending on the quantity ordered. Thus, as seen in Exhibit B, the 413,000 red projectiles sold equate to about \$567,227 in sales for a total of about 27% of the gross sales from August 2000 to May 2001.

8. Based on these figures in Exhibits A, B and C from August 2000 to May 2001, and as shown in Exhibit B, it is estimated that about 50% of the total gross sales are due to sales of projectiles for use with the Pepperball product. Thus, about 50% of all sales are due to the compressed gas launchers and accessories and revenues from training.

9. Out of the projectile sales shown in Exhibit B, it is estimated that approximately 54% of the projectile revenue is derived from sales of the red powdered OC projectiles. Thus, the red projectiles account for about 27% of the total revenue received from August 2000 to May 2001.

10. In terms of sales to law enforcement agencies, we have sold the Pepperball product to about 500 law enforcement agencies across the country out of about 35,000 total law enforcement agencies nationwide in the last 18 months. Thus, the Pepperball product is currently used in about 1.4% of all the law enforcement agencies in United States.

11. Other products on the market include OC aerosol spray canisters, tasers, bean bag shotgun rounds and 37mm and 40mm projectile launchers that launch kinetic and chemical rounds. Of our competitors, Taser International, Inc. (formerly Air Taser, Inc.) has sold tasers to about 400 agencies since 1993 or about 1.1% of the agencies in the country. We obtained this information via the disclosure materials provided when Air Taser, Inc. became a publicly owned company last year. Furthermore, it is estimated that SageCo has sold kinetic rounds for 37mm/40mm projectile launchers to about 110 agencies since about 1990. Thus, SageCo has presence in about 0.3% of the agencies nationwide. I learned this information in discussions with the President of SageCo at a recent tradeshow. From my background in law enforcement, I estimate that bean bag shotgun rounds and OC spray canisters are much more widely used, for example, in over 50% of the agencies nationwide.

12. In terms of market share, it is difficult to determine the market share filled by the Pepperball product. I believe that the Pepperball product is in a market of its own. Most competing products are classified as less-lethal devices. That is, in some situations, they may be lethal. I believe that the Pepperball product is a truly non-lethal system. We believe that the Pepperball product is non-lethal in any use. For example, even if the suspect is struck in the eye with a projectile, the suspect may be blinded, but the suspect will not die. This places the Pepperball product in a truly non-lethal class along with OC spray

canisters. However, the Pepperball product is quite different from the OC spray devices since it delivers a powdered OC, versus a liquid OC, and delivers it from both short and long ranges. I am not aware of any non-lethal projectile systems for patrol use that deliver a powdered OC substance.

13. I believe that the Pepperball product is not a competing product, but a completely new product previously unavailable on the market. Thus, since the Pepperball product is truly non-lethal and delivers a powdered OC safely from both long and short range, the Pepperball occupies its entire market share. Considering other non-lethal projectiles, such as OC sprays, I estimate that the Pepperball product has a very small market share. For example, the Pepperball product is used in about 1.4% of agencies vs over 50% of the agencies that use OC sprays. Compared to all non-lethal and less-lethal devices, the market share of the Pepperball product is very minimal. However, the Pepperball product is substantially different in use and effectivity than all other less-lethal and non-lethal systems on the market.

14. In addition to the 500 agencies using the Pepperball product, JTS has product quotes of about \$1 million out to about another 140 police agencies in the country. In our experience in the last 18 months, we have seen that about 97% of our quotes have led to sales. Thus, based on this statistic, we project that the Pepperball product will shortly be used in at least about

635 agencies nationwide. Attached is Exhibit D, which is listing of about 115 of our outstanding quotes.

15. I believe the fact that we have sold the Pepperball product to over 500 agencies in the last 18 months as well as the fact that 97% of quotes lead to sales to be exceptional. In particular, coming from a law enforcement background, this is unbelievable in terms of my knowledge of new weapon system adaptation by law enforcement agencies. This is also significant in view of our current sales strategy and the fact that there are several barriers in the market that inhibit the sales of the Pepperball product.

16. The Pepperball product represents an entirely new weapon system using an entirely new launch platform. For example, law enforcement can not simply purchase the projectiles and use them in their existing firearms, e.g., such as a bean bag round that may be purchased and used in a conventional shotgun. In order for a law enforcement agency to adopt the product, the agency must purchase both the compressed gas launchers and the projectiles. This represents a significant cost for an agency.

17. JTS currently charges between \$350-450 for a launcher kit that includes a compressed gas launcher, carrying case, hopper and HPA (high pressure air) bottle. Our most popular compressed gas launcher kit sells for \$378 alone. The live projectiles each cost between \$1.12 and \$1.60 depending on the quantity ordered. These prices are shown in the price list attached as Exhibit C.

18. In comparison, bean bag rounds for conventional shotguns cost about \$4.50-\$6/round. Tasers are about \$350. OC spray canisters are about \$15. Kinetic projectiles for 37 mm/40 mm projectile launchers range from \$13-30 per round.

19. Furthermore, law enforcement agencies can not purchase the product without having funding for such purchases budgeted. These law enforcement agencies are governmental agencies and thus, all purchases must fit within an allocated budget. Often, these law enforcement agencies must get funding approved up to a year in advance to purchasing the Pepperball product. This makes it difficult to sell the product and makes it difficult to predict when sales will be finalized. For example, a particular agency may have decided they would like to purchase the system, but it may be an unknown period of time before the purchase actually occurs.

20. I believe that budgeting cycles have affected the sales of the product. For example, as seen in Exhibit A, sales of the product generally increased throughout 2000 until about August, then begin to decline through the remainder of 2000 and after March 2001 have begun to climb again. This decline and recent increase may be a result of budgeting cycles of the individual police agencies, and not due to any lack of effectiveness of the product.

21. Additionally, another possible barrier to potential new sales may be the unintended result of our current sales strategy. During our first 18 months, JTS

has not used the traditional "distributed sales model" in which a large credentialed sales force sells the product using commissioned field representatives or distributors. These distributors sell the product to the law enforcement agencies. In contrast, JTS employs the "direct sales model", in which JTS employees directly sell the product to law enforcement. This is motivated by our desire to develop a continuing relationship with our customers by providing attentive and high quality service and customer satisfaction. Thus, we provide comprehensive training, which also reduces our exposure to liability. Therefore, during our first 18 months of sales, we have focused our selling efforts on achieving a high quality of sales instead of a high quantity of sales.

22. Since we are interested in providing the best service possible, we do not employ traditional large sales staff. During the period of sales from January 2000 through June 2001, our total sales staff consisted of five (5) persons responsible for selling the product nationwide. Furthermore, this sales staff does not include "salesmen" in the traditional sense. We have not hired credentialed salespersons to sell the product, we hire ex-law enforcement officials to sell the product. Thus, in order to better understand the issues relating to the purchase and implementation and better react to such issues, we use "cops" to sell to "cops".

23. Therefore, since we have focused our attention to fewer, higher quality sales, it may have been possible to have sold the product to even more

customers during these first 18 months if we had adopted another sales strategy. However, again, our primary goal was to provide a great customer service experience and comprehensive training for the customers we obtain, rather than provide an average customer service experience with little or no training to as many customers as possible. Regardless, despite our current sales strategy, we have sold the product to a significant number of customers in a short period of time.

24. Furthermore, during the first 18 months of sales, as a prerequisite to being able to buy the product, JTS requires that one or more officers of the law enforcement agency be trained and certified as Pepperball Instructors to use the Pepperball Product and train other officers of the agency. Currently, JTS personnel present an 8 hour Pepperball Instructor Certification training course to each law enforcement agency on the proper use of the Pepperball product before we will sell them the product. The cost of this training is also charged to the purchaser, but only if the product is purchased. The cost of the training is approximately \$150 person. The revenue generated from the training is included in the sales figures of Exhibit A. Moving forward, the cost of the training will be charged and paid for in advance, even if the product is not eventually purchased.

25. This training represents a significant cost to the agencies since the persons to be trained must be pulled from their regular duty, replaced by another officer and then trained. The police agency must pay for

the officers to participate in the training course, pay for the replacement officers (typically at overtime wages), and ultimately pay for the training class itself. By adopting a different sales strategy that does not focus on providing a high quality of sale, e.g., by not requiring training and certification, it may have been possible to sell our product to even more law enforcement agencies.

26. In comparison, to my knowledge, other companies do not require that the customer be trained and certified prior to being able to purchase their products. For example, Taser International, Inc. does not require that its customers undergo training on the use of the taser prior to being able to purchase their product. Likewise, Defense Technologies, Inc. does not require training prior to purchasing bean bag shotgun rounds for use with standard shotguns.

27. Furthermore, once a law enforcement agency has decided to purchase, budgeted and approved the appropriate funds, and purchased the product, the remaining officers must be trained on the proper use of the Pepperball product. Officers must be trained how to properly use the product as well as be trained on the handling of the suspect and the filling out of additional department forms. Again, officers are typically pulled from the street, replaced at overtime wages and then trained. This cost increases significantly depending the number of officers to be trained. For example, the San Diego Sheriff's Department trained over 2000 officers on the Pepperball product after purchasing the system. I

estimate that the actual cost to the law enforcement agency to train the officers is about 3 times the cost of the product itself.

28. Due to these additional costs, many law enforcement agencies are resistant to adopt the Pepperball product in view of the costs alone. Generally, we have found that the agencies that have received quotes and not purchased the Pepperball product, have done so for reasons of cost and/or budget concerns, not due to the effectivity of the product.

29. It has also been difficult to convince law enforcement that although the direct and indirect costs of the Pepperball product may be initially higher than some competing less-lethal and non-lethal technologies, the long term costs resulting from the use of the Pepperball product will be reduced. For example, most law enforcement agencies budget a specified amount of money to deal with law suits resulting from police shootings. If there are fewer fatalities, there may be fewer lawsuits; thus, less budget would have to be dedicated to handle lawsuits. Furthermore, I estimate that it costs the average metropolitan law enforcement agency about \$150,000 just to investigate a fatal police shooting. With most less-lethal products on the market, there is a risk that they can be lethal. In contrast, the Pepperball product is not lethal in almost every normal use of the product. Since use of the Pepperball product does require that the suspect receive medical attention, additional costs are saved. For example, bean bag shotgun rounds potentially cause broken bones and

other internal damage due to the force of the impact on the suspect. Thus, every suspect hit with a bean bag shotgun round must be taken to the hospital and inspected prior to being taken to the police station. It is estimated that the police agencies may pay at least \$350 per visit to have suspect medically inspected. Again, with the Pepperball product, the suspect may be taken directly to the station without requiring a medical inspection. Additionally, the use of tasers and stun devices often require that the suspect is provided with medical attention, which again costs the agency. Therefore, I feel that because the Pepperball product is non-lethal and because the suspect may be taken to the station without medical attention, the Pepperball product will save law enforcement agencies money in the long run.

30. Also, during the last 18 months, we have seen that if we sell the product to a key or leading law enforcement within a particular region, that sales to other law enforcement agencies within that particular region follow. I believe that this is because the leading law enforcement agencies effectively set a new regional standard regarding the use of force. Thus, agencies not using the product within this region may open themselves up to liability. In one example, the San Diego County Sheriff's Department purchased and implemented the product. Within the following year, 11 more law enforcement agencies of the remaining 14 in San Diego County purchased the product. I believe this to be because of the Pepperball product's effectiveness as a non-lethal system that will reduce the number of police fatal shootings and liability.

31. Based on many factors described above, I have reached the conclusion that the sales of the Pepperball product are extraordinary in view of a resistant market and our current sales strategy.

32. In order to market and sell the Pepperball product, we have advertised the product, participated in tradeshow, held demonstrations and promotions, and even maintain a website. As shown in Exhibit E, from January 2000 to April 2001, JTS has spent no more than about 21% of the total revenue from sales of the Pepperball product in a single month on marketing efforts. Furthermore, during most months, the monthly percentage of marketing expenses to gross revenues (or sales) is considerably less. In an average month, the marketing expenses are about 7% of the gross revenues. Furthermore, the percentage of marketing expense to revenue has generally decreased since March of 2000. Thus, after March of 2000, the average monthly marketing expenses were about 4.6% of the gross revenues.

33. Trade shows are a large component of our marketing efforts. The first tradeshow we participated in was in March of 1999 at the TREXPO tradeshow. The product was shown at 4 tradeshow in 1999, 24 tradeshow in 2000 and in 2001, we are scheduled to demonstrate the product in about 33 tradeshow (See Exhibit F, which lists the tradeshow for 1999, 2000 and 2001). The cost of participating in and demonstrating (if permitted) our product at these tradeshow is variable, but is reflected in the "Trade Shows" row of Exhibit E. As seen in

Exhibit E, the costs of participating in Trade Shows has been our largest single marketing expense representing an average of about 2.55% per month of the revenue for the period of January 2000 to April 2001.

34. We have also held area promotions. This involves setting up a demonstration for a particular law enforcement agency. For example, a law enforcement agency may host a demonstration that we put on for the agency and other surrounding agencies that wish to attend. On average, these area promotions cost about 1.57% per month of the revenue for the period of January 2000 to April 2001.

35. We have also advertised the Pepperball product. Attached is Exhibit G, which is a listing of the dates of the advertisements in the various law enforcement magazines and also includes a copy of the advertisement as placed. The advertisements of Exhibit G were for the period of September 2000 through December 2000. It is noted that the advertisements have seemed to have little affect on the overall sales of the product since, as shown in Exhibit A, sales of the Pepperball product have slightly declined following the beginning of the advertising period. The costs of this advertising is an average of about 1.08% per month of the revenue for the period of January 2000 to April 2001.

36. We also maintain a website that promotes the Pepperball product at www.pepperball.com. This website has undergone several changes over the past 18

months. Attached as Exhibit H are copies of screen prints of some of the webpages from our website as of June 5, 2001. As illustrated in Exhibit E, the costs involved in updating and maintaining this website are an average of about 1.73% per month of the revenue for the period of January 2000 to April 2001.

37. I believe the funds allocated to marketing expenses to be very low, in particular when viewed as a percentage of the marketing expenses to the revenue received on any given month. I also believe that the funds allocated to marketing are on par with other companies offering other less-lethal and non-lethal systems.

38. I believe that the success of the Pepperball product is not primarily the result of our marketing efforts or other market factors, but results from the fact that the Pepperball product is a completely new product that offers law enforcement a truly non-lethal solution that may be used in many applications and overcomes the problems of other non-lethal and less-lethal systems available.

39. The Pepperball product is non-lethal because it delivers a powdered version of OC, which has been known to be non-lethal in liquid form for years. Furthermore, the projectile is delivered with a compressed gas delivery system, such as a modified paintball launcher. Paintball launchers have been known for years to be non-lethal, even if the person is struck in the eye or throat. In contrast, bean bag shotgun

rounds and other projectiles fired from traditional firearms, shotguns or 37mm/40mm projectile launchers are propelled by gunpowder and impact with considerably more kinetic force than the Pepperball projectiles. Thus, these competing products may be potentially lethal if impacted at close range or sensitive locations of the body. Additionally, the Pepperball projectile is frangible, such that it breaks apart upon impact, whereas bean bag shotgun rounds and other kinetic rounds are not frangible and impact with more kinetic force.

40. Additionally, most of our compressed gas launchers are able to fire a number of projectiles very quickly. Each hit increases the effect on the suspect by increasing the kinetic impact and increasing size of the powder cloud and its effect. For example, some compressed gas launchers fire about 6-7 projectiles per second. In contrast, many competing devices are one-shot devices or can not be fired quickly.

41. The fact that the Pepperball product delivers a powdered chemical agent from a distance enables both close and long range use of the device. In comparison, OC sprays can only be used at close range and thus, increase the risk of personal injury to the officer. On the other hand, bean bag shotgun rounds and 37 mm/40 mm projectile rounds may be lethal at close range.

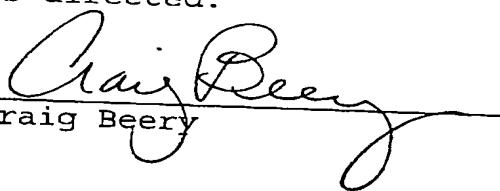
42. Furthermore, the fact that the projectile delivers a powdered chemical agent separates the Pepperball product from other systems on the market.

This powdered chemical agent has many significant advantages over similar liquid chemical agents. The powder allows for center of mass targeting so that the suspect is not required to be hit in the facial area. The powder also provides for indirect targeting to surfaces close to the suspect. The powder disperses as a cloud upon impact that surrounds the suspect. The suspect inhales the powder into his or her lungs and experiences a temporary sensation of an inability to breathe as well as coughing and gagging. The powder substance is also easy to clean up without requiring that the suspect undergo medical attention.

43. Additionally, agencies other than law enforcement are showing an interest in the Pepperball product. We are currently in the process of demonstrating the Pepperball product to the U.S. Navy as a possible weapon to non-lethally defend ships from attack. For example the Navy is looking for ways to prevent a ship from ramming another ship, such as recently happened to the U.S.S. Cole in 2000.

44. Furthermore, the U.S. Border Patrol purchased the Pepperball product and has implemented a pilot program in San Diego, California at the Chula Vista Crossing. The U.S. Border patrol is currently testing the Pepperball product to reduce shooting related deaths at border crossings. For example, the U.S. Border Patrol is looking for ways to non-lethally deal with rock throwing and other common occurrences that might not warrant the use of deadly force.

45. As I am advised I must, I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application, any patents issuing thereon, or any patent to which this Declaration is directed.



Craig Beery

Dated: JULY 14, 2001

Attachments: Exhibit A
 Exhibit B
 Exhibit C
 Exhibit D
 Exhibit E
 Exhibit F
 Exhibit G
 Exhibit H